

Corrosion protection for waste water systems and waste water pipes

Product description

2-component solvent-free mineral based coating which hardens hydraulically.

The combination of selected natural minerals plus a high-grade reactive fluid component produces the ready-to-use mixture PNEUCON®.

The outstanding product properties include:

- very good application on stable, rusty steel and all mineral surfaces
- no rust infiltration of the coating
- high-alkaline medium ensures active long-term corrosion protection
- temperature stability up to 95°C in the humid environment
- high resistance to acids and bases
- high adhesion force to steel that does not diminish even with multiple load changes
- hole filling and sealing capacities
- high resistance to abrasion
- resists load changes
- water tight with vapour permeability
- extremely low shrinkage of the material

Ground preparation

Concrete and Masonry

Sulfate injured, low strength concrete, rendering, oil, grease, paint, coatings and any loose separating substances must be removed. Minimal adhesive pull strength > 1 N/mm²

Steel surface

Oil, grease, paints, coatings and all loose, separating substances must be removed. For new pipelines mill scale or scale layers must be removed by sandblasting. Stable rust can remain on the steel. Degree of purity according to ISO 8501-1 Sa1. A small amount of residual humidity (no free water) can be tolerated.

Cleaning

Ultrahigh water pressure or solid blasting agent.

Mixing process

Shake the fluid component included in the delivered package (in plastic container) well and add it to the powder component. Mix both components for 1 to 2 minutes, using a hand mixer. Let the mixture rest for 30 minutes. Then mix well again for 2–5 minutes, apply only after this step. When using continuously running pug mixers, the uninterrupted mixing time is > 30 minutes. The mixing location should be protected against direct solar radiation.

Finished mixture

Viscous consistency Application related or in case of deep pitting corrosion in the pipe the processor can add to the mixture up to 50% fire-dried quartz sand (grain size 0.1-0.6 mm). Attention! The required amount of quartz sand must be determined by individual tests.

Processing period

The processing period of the ready-to-use mixture is around 2 hours at an ambient temperature of 20°C. Lower temperatures will prolong the processing period, higher temperatures will reduce it.

Processing

Painting, centrifuging, spraying. Attention: Pipelines have to be closed after coating against draught.

1. Brush or roll
2. Skidding or smooth over
3. Airless spraying pressure ≥ 100 bar (prior to spraying, the finished mixture must be fed through a shaking screen of < 0.5 mm mesh size.)

Consumption figures

Thin-film coating. Layer thickness ≥ 2 mm – approx. 3 – 4 kg/m² while spraying

Putting into operation

Wastewater bay – Wastewater chamber

Chemically resistant after 10 days at an ambient temperature of 20°C. Lower temperatures will prolong the period until the pipes can be put into operation. In practice, it is recommended to evaporate the rooms with superheated steam before and after the application of the coating or the mortar to ensure an immediate start of using the construction (see specifications shaft renovation). Without evaporation, the construction can be used after 7 days.

Pipe – Steel – Concrete

After the application of the coating or the mortar, the pipe may be evaporated with superheated steam after 24 hours to ensure an immediate start of using the construction. Without evaporation, the construction can be used after 7 days.

Sewage-plant

At +20 ° C ambient temperature, the coating or mortar is surface dry and passable after 12 hours. The burden of waste water can be made only after 7 days.

Practical hint

For re-profiling and joint repair we recommend to use PNEUCON repair mortar which is a part of the system.

Delivery component

Powder component: Component A, high-quality mineral component

Fluid component: Component B, aqueous reactive polymer dispersion with additives

Processing temperature

not below + 5°C

Color

green / red

Surface quality

Smooth to orange skin-like appearance

Equipment cleaning

with water

Material density

wet 1,8 kg = 1 litre of ready-for-use mixture (without quartz sand)

Storage

12 months, dry, not below 0 °C and not above +30 °C

Material safety measures

As with cement products. Store under lock and key and inaccessible for children. Flush thoroughly with water in case of eye contact. Irritates the eyes and the skin. Remove any soiled or soaked clothing from the body. Wear suitable protective gloves/face protection during work. Non-hazardous materials for transport.

Environment

The material can be disposed of on a household waste dump after hardening.

Note: The information in the list above is provided on the basis of our experience and according to the best of our knowledge, but without obligation. The information must be adapted to the building objects in question and the particular requirements. On condition of the above, we are liable for the correctness of our Terms of sale and delivery. Recommendations made by our employees and deviating from our codes of practice shall be binding for us only if confirmed in writing.